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IMPROVEMENT IN CREATIVITY IN TEACHING

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ABSTRACT

The writer herself is a teacher educator. She got many experiences while guiding them for their practice teaching. It was her observation that those student teachers were always found eager to do work for new and interesting things. So the writer herself decided to help them to think creatively. So she had prepared a test of measurement of creativity in teaching. The same test is used to have overall idea of creative thinking of students of all student teachers of university of Pune. She had decided that creativity in teaching is made up of fluency, flexibility, originality, elaboration, sensitivity to the problems, openness, redefinition and resourcefulness. So a survey created to have a clear idea of creative thinking of student teachers. Then she had done a creative thinking programme and it was applied to student teachers of Sangamner. The same programme was also applied for schoolteachers. They all have appreciated the experience.

KEYWORDS: Creativity in Teaching

INTRODUCTION

Need of the Study

Usually teacher education programmes in India are described as irrelevant, rigid and having a wide gap between theory and practice. Various researches conducted in various states of India for assessing the effectiveness of teacher education psrogrammes basically support the above mentioned portrayal of teacher education programmes.

Teacher education system being associated intimately with school education, deficiencies their in causes ill effects on the present day school education i.e. ultimately the future of next generation.

Hence educational reforms need to be initiated from teacher education institutions.

If India wants her schools free from rote learning, the undue importance to the limitations imposed on students and authoritarian culture, their teacher's mindset needs be changed.

Being a teacher educator, the researcher found that the prospective teachers (B. Ed. student teachers) are weak in higher order mental processes specifically in creative thinking. Being not competent in thinking, they adopt only a follower approach and gradually become conformist and rigid. The autocratic atmosphere in teacher education institutions worsens the situation. Therefore, the researcher decided to focus on the capacity building of student teachers through this study. When related literature was reviewed, it was found that all over the world, there is a growing importance attached to creative thinking, not only in the field of education but in business also.

Various education commissions, policy makers and thinkers on future trends in education have emphasised the importance of inclusion of creativity in education. Therefore if our students from schools are expected to think creatively, it is essential that their teachers have to think creatively.

Professional preparation of teacher is the responsibility of teacher education institutions. Naturally they have to provide the inputs of 'creative thinking'. This may further help add some flexibility and liveliness in teacher education programmes.

For all such considerations, the researcher decided to prepare a programme of enhancement of Creativity in Teaching, on student teachers from B. Ed. colleges and study its effectiveness on them.

Statement of the Problem

A survey of status of student teachers of University of Pune regarding their Creativity in Teaching with a view to improving the same through a training programme and testing its effectiveness with special reference to College of Education, Sangamner.

Objectives

The study was carried out with the following objectives in view.

- To find out the present status of Creativity in Teaching of student teachers from B. Ed. colleges of University of Pune.
- To prepare a programme for enhancement of Creativity in Teaching.
- To assess the effectiveness of the programme prepared for improving Creativity in Teaching.
- To study the relationship between exposure and Creativity in Teaching.

Assumptions

Before beginning the study some assumptions were made and they were :

- Training facilitates thinking.
- Creative thinking leads to creative act.
- There is a transfer of learning.

Hypotheses

It was found from previous researches in the area of creativity that creative thinking can be developed through training programmes. Hence the hypotheses for this study were formulated as follows :

- Programme prepared for the development Creativity of in Teachingis effective.
- Average performance on the test of Creativity in Teaching of student teachers of experimental group will be more than that of the control group.

Research Questions

Apart from hypotheses, following research questions were also raised.

- Is there any correlation between achievement scores of student teachers at degree level and their Creativity in Teaching ?

- Is there a faculty wise difference in Creativity in Teaching of student teachers ?
- Is Creativity in Teaching a function of gender of a student-teacher ?

Operational Definitions

The researcher had used some words with their specific meanings restricted for the present study. These operational definitions are given below:

- **Student Teacher:** Astudent who is studying in college of education under the jurisdiction of University of Pune for B. Ed. course, studying through 'Marathi medium' in the year 2004-05.
- **Creativity in Teaching:** There is a presence of Creativity in Teaching, when a teacher makes use of his/her competencies such as openness, sensitivity to the problem, fluency, flexibility, originality, elaboration, redefinition and resourcefulness, while discharging his/her duties as a facilitator of learning process. In other words, it is the total score on the test prepared by the researcher measuring Creativity in Teaching of student teachers.
- **Exposure:** It is the score on researcher made tool which measures the extent of opportunities of variety of experiences made accessible to the student teachers at their school and college level (i.e. in their interactions at previous formal education institutions).
- **Emotional Quotient:** It is the total score on a test of Goleman which measures emotional intelligence. 'Emotional intelligence' refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships. The test used in the study is translated into Marathi by the researcher.

DELIMITATIONS

In order to interpret and use the findings of the study it is essential to note the scope and limitations of the study.

- The present study covered student teachers studying through Marathi medium only in all colleges of education affiliated to University of Pune in the year 2004-2005. The experiment was conducted on Marathi medium students of College of Education, Sangamner. Since admissions are centralized and other norms being the same, observations and findings may hold good for any B. Ed. College (having 'Marathi' as a medium of instruction) from University of Pune and also for any B. Ed. College from any other university in Maharashtra having similar conditions.
- The researcher herself implemented the programme. Hence the investigator and experimenter were the same.
- The tool for measuring Creativity in Teaching was a researcher made tool and was prepared by following the steps in Test construction. It was used after testing and ascertaining its validity and reliability.

REVIEW OF RELATED LITERATURE

At present there are lot of researches carried out on various aspects of creativity in India and abroad.

From the studies reviewed, it is evident that the major thrust was on finding the correlation of creativity with

social and personality variables. But nobody had tried to find the relationship between exposure and Creativity in Teaching. This was a research gap. The researcher decided to fill this by the study.

The researches regarding development of creativity were also studied. It was found that in most of the cases the creativity development programmes were applied on school students. The researcher could not get a single evidence of a programme like ' Creativity in Teaching' and that too for B. Ed. student teachers. So the researcher decided to undertake this study.

In addition to this, it was found that there were many tests measuring creativity in general or subject specific. This non-availability of test of

Creativity in Teaching had prompted the researcher to prepare a test on Creativity in Teaching.

Thus the review had helped the researcher to select broad areas of creativity for her research and to decide the method of investigation accordingly.

PROCEDURE

The method of research was a combination of survey and experimental method. Survey method was used to have an idea about present status of ' Creativity in Teaching' of student teachers. Experimental method was used to find out the effect of programme of 'enhancement of Creativity in Teaching' on student teachers.

Tool Preparation

Due to the non-availability of any standardized test regarding Creativity in Teaching, a test measuring Creativity in Teaching was prepared by the researcher.

The process of preparation of the test consisted of following steps and the same are mentioned in brief below:

- Test items measuring factors of Creativity in Teaching were prepared and a first draft of test was formed.
- This test was shown to the experts in the field to teacher educators and to experienced school teachers and was modified based on their suggestions.
    - Thirty seven secondary school teachers from and nearby Sangamner responded to this test. Their responses were analysed.
    - The researcher used one more test. It was of 'emotional intelligence' prepared by 'Goleman' and others. The researcher got it on a website. She downloaded it and translated it into Marathi.

Validity

Logical validity was established. Concurrent validity was established by computing the correlation between the total creativity scores obtained by D. Ed. student teachers on TTCT and the creativity test constructed by the investigator. It was found to be r = 0.51.

Reliability

Reliability of a test as calculated by split half method is r = 0.81. Thus the tools used during the study were,

Torrance Test of creative thinking (Marathi version)

- Test of emotional intelligence by Goleman and others (Marathi translation by the researcher)
- Test of 'Creativity In Teaching' (TCIT) Marathi version constructed by the researcher.

SAMPLE

Between August 2005 to December 2005, student teachers of 16 B. Ed. colleges affiliated to University of Pune were surveyed regarding their Creativity in Teaching and exposure. From every B. Ed. college, 25% of

Marathi medium student teachers were randomly selected. In all 429 student teachers constituted the sample for analysis.

EXPERIMENTAL DESIGN

The experimental design was 'pretest-post test control group design'.

From 80 student teachers of G.E.S.College of Education, Sangamner of the academic year 2004-2005; two groups having 40 student teachers in each were made. From them, experimental and control groups were randomly formed. In addition to this, one more control group of 80 student teachers from SSB College of Education, Shrirampur was formed. In order to find out the effect of contamination, this provision of additional group was made. All the three groups were pre-tested for their Creativity in Teaching.

The programme of enhancement of Creativity in Teaching was an independent variable where as the score on the test of Creativity in Teaching was the dependent variable. The researcher was also interested in finding out the effect of interaction of some independent variables on the dependent variable. The variables were exposure, emotional intelligence, scores on Torrance test of creative thinking (verbal form). Hence initially all these groups were tested for above mentioned variables.

A programme of enhancement of Creativity in Teaching (i.e. treatment) was conducted on experimental group for 22 days and in all for 35 clock hours, in January 2005. No treatment other than regular B. Ed. course was given to both the control groups. After the experiment, all the groups were post-tested.

Initially the programme was implemented on 43 D. Ed. student teachers as a pilot study, in December 2004. After the experiment, the same programme was executed on some secondary school teachers as a replicability study in June 2005.

Nature of the Programme

The eight factors of Creativity in Teaching were dealt with in this programme. The principles of andragogy and constructivism were followed during the programme. Some in-built factors for creative thinking were group work, democratic classroom atmosphere, adequate scope to discussion and analysis, effective use of audio-visual aids, relevance of learning material.

Besides the post test, the day to day learning of the experimental group was evaluated by a port folio method and through day to day assignments and some self analysing exercises. A feedback about the programme was also collected and analysed. A follow-up was also tried. It was found that the student teachers had applied the programme contents in their classes during the internship programme which was immediately after the experiment.

Findings of the Survey: The test TCIT was comprised of three parts. Part I was of general profile of student teachers. Part II was based on factors included in 'exposure' and Part III consisted of questions related to factors of Creativity in Teaching.

Analysis of Part I helped in having an overall idea of student teachers. Majority of the student teachers 253 (i.e. 58.97%) were having rural upbringing. Within rural, male student teachers were more (160 i.e. 63.2%) compared to female students and within urban, female students were more (121 i.e. 68%) compared to male students. Majority (300 i.e. 69.93%) were computer literate when they entered for B. Ed. course. One third of the student teachers (150 i.e. 34.97%) had an experience of teaching. The mean of scores of Creativity in Teaching of 429 student teachers was 29.89 having standard deviation 10.43 Also the mean score of exposure of 429 student teachers was 30.47 having standard deviation 9.41

Besides understanding the present status of Creativity in Teaching of student teachers, the study was intended to find out the relationship of

Creativity in Teaching with social factors, gender, exposure and openness. It was found that,

- The sample was homogeneous in case of both exposure and creativity in teaching.
- There was significant and positive correlation between exposure and creativity in teaching.
- There was significant and positive correlation between openness and exposure.
- There was no significant difference in average exposure of rural and urban student teachers.
- There was a significant difference in average exposure of male and female student teachers.
- There was no significant difference between mean exposure of arts, commerce and science students.
- There was significant difference between average exposure of rural male student teachers and urban female student teachers.
- There was significant difference between average exposure of rural female and urban male student teachers.
- There was significant difference between average exposure of rural male and rural female student teachers.
- There was no significant difference between average exposure of urban male and urban female student teachers.
- There was no significant difference between average exposure of urban male and rural male student teachers.
- There was no significant difference between average exposure of rural female and urban female student teachers.
- There was no significant difference in average score of creativity in teaching of rural and urban student teachers.
- There was no significant difference in average score of creativity in teaching of male and female student teachers.
- There was no significant difference between average score of creativity in teaching of Arts, Commerce and Science student teachers.
- There was no significant difference between average score of creativity in teaching of rural male and urban female student teachers.

- There was no significant difference between average score of creativity in teaching of rural female and urban male student teachers.
- There was no significant difference between average CIT score of rural male and rural female student teachers.
- There was no significant difference between average CIT score of urban male and urban female student teachers.
- There was no significant difference between average CIT scores of urban male and rural male student teachers.
- There was no significant difference between average CIT score of rural female and urban female student teachers.

Findings of Experiment

The statistical techniques used for analysis of experimental data were

ANOVA, ANCOVA and multiple regression analysis.

Initially on par relationship between all the three groups regarding their Creativity in Teaching, emotional intelligence, exposure and scores of TTCT (Torrance Test of Creative Thinking) was checked by using ANOVA.

It was found that initially all the three groups were equivalent regarding their Creativity in Teaching, emotional intelligence exposure and scores of TTCT (Torrance Test of Creative Thinking). The difference in their mean scores was due to random error.

To find out the effect of programme, ANCOVA was used. It was found that, $F = 92.29$, showed a significant gain in Creativity in Teaching of experimental group. When the significance of difference between the adjusted means of 'CIT' of three groups was computed through 't' test; it was found that the experimental group mean was significantly higher than means of both the control groups.

The separate effects of the independent variables such as exposure, emotional intelligence, TTCT on the dependent variable were computed and were not found significant. Hence to find out the effectiveness of their interaction, multiple regression analysis was used. It was found that the interaction of independent variables could predict significantly only 32.7% about the dependent variable. Therefore it can be said that the interaction effect was not significant to overcome the effect of the programme.

CONCLUSIONS

- The programme prepared for the development of Creativity in Teaching was found effective.
- Average performance of experimental group of student teachers in case of Creativity in Teaching was significantly higher than control group.
- There was no faculty wise difference in Creativity in Teaching of student teachers.
- In case of student teachers, Creativity in Teaching was not found to be gender influenced.
- There is a significant and positive correlation between exposure and Creativity in Teaching.
- Among the eight factors of Creativity in Teaching, openness was found as a prime important factor.
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Implications

This study has many implications.

- Presently, NCTE expects that the teacher should be creative. Hence such kind of programme can be a good value addition to current teacher education programmes. Further it can also be used for teacher education programmes through distance mode by preparing self-instructional material.
- Training programme of Creativity in Teaching can be arranged as a part of refresher course for teacher educators who are playing an important role in teacher education institutions.
- This programme can be used as an in-service training programme for secondary as well as primary teachers with some relevant changes in learning experiences.
- It can be used as an input to personality development training modules which consist of skills of listening, observing, thinking and problem-solving. This programme provides one important input of 'openness' and it would be beneficial to society at large.

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